

REMARKS

The Office Action mailed April 15, 2003 has been carefully considered together with each of the references cited therein.

5 Claims 1 and 5-24 are presented for examination.

Claims 2, 3 and 4 have been cancelled.

Transmitted herewith is a supplemental disclosure statement which includes references cited in a "Supplemental European Search Report" dated June 26, 2003. The new references were catagorize by the European examiner as technical background relevant to original Claims 1, 5, 6
10 and 11 of the European application.

Applicants respectfully urge that the newly cited references recently received from Applicants' European associate be entered as references of record in this application. However, it is urged that the references do not suggest the combination called for in any of the claims pending in this application.

15 Claims 7 and 13 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 7 and 11 of copending Application No. 09/701,478. The examiner noted that this is a Provisional double patenting rejection since the conflicting claims have not in fact been patented. The examiner further indicated that a statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no
20 longer coextensive in scope. Claims 7 and 13 have been amended such that the conflicting claims are no longer coextensive in scope. Applicants urge that the "Provisional Double Patenting" rejection be withdrawn.

25 Claims 1-2, 5-7, 8-12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (CA 2,064,270) in view of Andersson et al (#5,155,799). The examiner noted that Davis does not show the heating means as claimed.

Claims 3 and 4 were rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in

view of Andersson et al as applied to Claims 1-2, 5-7, 8-12, and further in view of Forman (#5,937,615). The examiner noted that Davis in view of Andersson et al do not show a second sealed strip being spaced away from the first sealed strip with perforations in between.

Claim 1 has been amended to call for gripping spaced portions of the bag between a pair of horizontally spaced upper belts and a pair of horizontally spaced lower belts, said horizontally spaced upper and lower belts being arranged to engage spaced portions on the neck of a bag such that the neck bridges space between the belts; forming a row of perforations across the neck of the bag between the loaf of bread in the bag and the open end of the bag neck; and forming first and second sealed strips on spaced portions on the neck that bridges space between the belts on the segment of the flattened portion adjacent opposite sides of the row of perforations, such that the loaf of bread in the bag is not accessible without removing the first sealed strip and opening the neck of the bag along the second sealed strip.

Applicants respectfully take issue with the position of the examiner that Davis in view of Andersson et al and Forman (#5,937,615) suggest forming first and second sealed strips with perforations in between, such that the loaf of bread in the bag is not accessible without removing the first sealed strip and opening the neck of the bag along the second sealed strip. Applicants urge that Claim 1 be allowed. Claims 2, 3 and 4 have been cancelled, without prejudice.

Claims 5 and 6 are dependent on Claim 1.

Claim 5 further calls for moving the neck of the bag such that streams of heated air impinge on the surface of the bag on spaced portions on the neck that bridges space between the belts.

Claim 6 further calls for delivering air heated to a temperature in a range between about 315° and 600° Fahrenheit in a stream to impinge against the surface of the bag.

Applicants respectfully take issue with the position of the examiner that Andersson et al suggest the concept of sealing bags using heated air means, as called for in Claim 5 and 6.

The examiner stated that:

“Andersson et al disclose that hot air has advantages with regard to rapid and concentrated heating (col 2 lines 8+). The heated air is disclosed as having a temperature range between 300 and 500 degrees Celsius.

Davis also discloses that the hot air is distributed to two nozzles 7. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide Davis with hot air means as taught by Andersson et al to provide the advantages with rapid and concentrating heating means. Regarding the location of parts, such as, the location of air dispensers/manifolds, the examiner notes that little patentable weight is given to the location of parts unless there is some criticality or unexpected result from the location. See *in re Japikse*, 86 USPO 70 (CCPA 1950).
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Regarding the temperature as claimed, Andersson et al show a temperature range as discussed *supra*. Optimum ranges via experimentation are known and little patentable weight is given unless the particular range imparts new and unexpected result, which are different in kind, and not merely degree. See *in re Dreyfus*, 22 CCPA (Patents) 830, 73 F.2d 9312; *in re Waite et al*, 35 CCPA (Patents) 1117, 168 F.2d 104. Regarding the two
10 seals as claimed, Davis discloses a seal 6a and an upper seal 19 wherein a perforation is immediately beneath heat seal 19 (p. 7 2nd paragraph).
15 Therefore, the perforation is in between seal 19 spaced apart seal 6a which reads on the current claims. The hard seal 19 is removed with perforation.
20 Regarding the diverter valve as claimed, Andersson et al disclose two nozzle manifolds 7 that are blowing and that the nozzles/manifolds are connected by a control unit to apply the desired amount of air flow rate to the two manifolds/nozzles. This is a mechanical equivalent to applicant's diverter valve. Furthermore, examiner takes official notice that diverter valves are well known in the art. Examiner takes official notice that cold
25 seals are well known as well."

The motivation, to use different structure to take advantage of a different concept or to improve efficiency, is too general because it could cover almost any alteration contemplated of the primary reference and does not address why these specific proposed modifications would have been obvious. Additionally, there is nothing in either of references that would suggest gripping
30 spaced portions of the bag between a pair of horizontally spaced upper belts and a pair of horizontally spaced lower belts, said horizontally spaced upper and lower belts being arranged to engage spaced portions on the neck of a bag such that the neck bridges space between the belts; forming a row of perforations across the neck of the bag between the loaf of bread in the bag and the open end of the bag neck; and forming first and second sealed strips on spaced portions on the
35 neck that bridges space between the belts on the segment of the flattened portion adjacent opposite

sides of the row of perforations, such that the loaf of bread in the bag is not accessible without removing the first sealed strip and opening the neck of the bag along the second sealed strip. Further, ~~there is not anything in either reference that would suggest that the perforations should be formed as a separate step before forming the sealed strips. Finally, although Davis discloses~~

5 perforations between the bottom of the bag and the open end of the bag, there is no suggestion, other than Applicant's disclosure, to employ heated air jets to form seals adjacent opposite sides of a strip of perforations such that the loaf of bread in the bag is not accessible without removing the first sealed strip and opening the neck of the bag along the second sealed strip. The rejection is improper.

10 Claim 7 calls for a method for forming a tamper evident closure on a plastic bag containing a product comprising the steps of: forming a row of perforations in the bag; gripping the bag at spaced positions adjacent opposite sides of the row of perforations; and directing temperature controlled air to impinge against the bag between the gripped positions for forming a pair of spaced sealed strips adjacent opposite sides of the row of perforations. The method of Claim 7 offers a
15 non-contact fusion method, which can seal bags with ink on the bag neck, and allows a tamper evident seal to be formed on plastic bags of the type that are currently being used by existing closing systems. Further, the second seal between the product in the bag and the row of perforations, prevents entry of contaminants through the row of perforations into the bag. The references, when considered separately or in combination, do not suggest the method of Claim 7,
20 and it is urged that the claim be allowed.

Claim 8 calls for apparatus for forming a tamper evident closure on a plastic bag containing a product comprising:

25 means for gripping spaced portions of the bag; means for forming a row of perforations in the bag between the gripped portions of the bag; and means for delivering temperature controlled gas to impinge against the surfaces of the bag between the gripped portions for fusing portions of the bag between the gripped portions for forming hard and soft sealed strips, said perforations being positioned to permit removal of the hard sealed strip. The references, when considered

separately or in combination, do not suggest the combination of Claim 8, and it is urged that the claim be allowed.

Claims 9-12 are dependent on Claim 8.

Claim 9 provides that the means for gripping spaced portions of the bag comprises horizontally spaced upper belts and horizontally spaced lower belts, said horizontally spaced upper and lower belts being arranged to engage spaced portions on the neck of a bag such that the neck bridges space between the belts. The references, when considered separately or in combination, do 5 not suggest the combination of elements called for in Claim 9, and it is urged that Claim 9 be allowed.

Claim 10 provides that the means for forming a row of perforations in the bag between the gripped portions, called for in Claim 8, comprises an anvil having a slot formed therein adjacent one side of the neck of the bag and a perforator wheel having cutter teeth positioned adjacent the other side of the bag neck such that said teeth perforate the bag and extend into the slot formed in 5 the anvil when a bag neck moves between the anvil and the perforator wheel. The references, when considered separately or in combination, do not suggest the combination of elements called for in Claim 10, and it is urged that Claim 10 be allowed.

Claim 11 calls for apparatus for forming a tamper evident closure on a plastic bag according to Claim 8, said means for delivering temperature controlled gas to impinge against the surface of the bag comprising an upper manifold positioned above the neck of the bag and a lower manifold positioned below the neck of the bag; and means for delivering air through said upper and 5 lower manifolds for impinging against the neck of the bag, said air being heated to a temperature sufficient for melting the bag neck for forming sealed strips extending generally parallel to said row of perforations. The references, when considered separately or in combination, do not suggest the combination of elements called for in Claim 11, and it is urged that Claim 11 be allowed.

Claim 12 is dependent on Claim 11, and further calls for a diverter valve adjacent each of said upper and lower manifolds, each said diverter valve being actuatable to divert air flow from said upper and lower manifolds and to exhaust air, without interruption of the flow of air into the

diverter valves. This structure allows steady flow of air through a heater to maintain uniform temperature. If valves merely opened and closed in a supply line to the manifolds, temperature and pressure of air delivered to the manifolds would not be uniform. The references, when considered separately or in combination, do not suggest the combination of elements called for in Claim 12, and it is urged that Claim 12 be allowed.

Claim 13 has been amended to overcome the provisional double patenting rejection. The references, when considered separately or in combination, do not suggest the combination of elements called for in Claim 13, and it is urged that Claim 13 be allowed.

New Claim 14 calls for a method of forming a tamper evident seal on a plastic bag containing a product including the steps of: directing temperature controlled air to impinge against the bag between the gripped positions for forming a pair of spaced sealed strips adjacent the strip of perforations, a first of said pair of sealed strips being formed on a segment of the flattened portion between said strip of perforations and the product in the bag; and a second of said pair of sealed strips being formed on a segment of the flattened portion between said strip of perforations and the open end of the bag, said second sealed strip being spaced away from said first sealed strip with perforations between said first and second sealed strips. The references, when considered separately or in combination, do not suggest the method of Claim 14, and it is urged that the claim be allowed.

New Claim 15 defines a method for forming a tamper evident closure on a plastic bag containing a product comprising a combination of steps including directing temperature controlled air to impinge against panels of the bag between gripped positions for forming at least one sealed strip adjacent a row of perforations, panels of the bag being fused without physically contacting surfaces of the panels of the bag with heated sealing elements. The references, when considered separately or in combination, do not suggest the method of Claim 15, and it is urged that the claim be allowed.

New Claim 16 calls for a method of forming a tamper evident seal on the neck of a plastic bag containing a loaf of bread, the neck of the plastic bag having an open end, comprising a

combination of steps including directing temperature controlled air to impinge against the bag between gripped positions for forming a pair of spaced sealed strips adjacent the strip of perforations, a first of said pair of sealed strips being formed on a segment of the flattened portion between said strip of perforations and the product in the bag; and a second of said pair of sealed strips being formed on a segment of the flattened portion between said strip of perforations and the open end of the bag, said second sealed strip being spaced away from said first sealed strip with perforations between said first and second sealed strips; gathering the flattened portion of the bag between the first sealed strip and the product; and attaching a reusable closure to said neck. The references, when considered separately or in combination, do not suggest the method of Claim 16, and it is urged that claim 16 be allowed.

New Claim 17 calls for apparatus for forming a tamper evident closure on a plastic bag containing a product comprising: a conveyor for moving a plastic bag containing a product along a path, said bag having an open end forming a neck extending beyond the product in the bag; an air nozzle for flattening the open neck as the bag is moved by said conveyor; a pair of upper belts and a pair of lower belts, said upper and lower belts being horizontally spaced apart such that one of said upper belts and one of said lower belts engage opposite sides of a portion of the neck of the bag and one of said upper belts and one of said lower belts engages a second portion of said bag neck such that a portion of the bag neck bridges space between the upper pair of belts and the lower pair of belts; and a perforator wheel adjacent one side of said bag neck and an anvil having a slot formed therein adjacent the other side of the bag neck, said perforator wheel forming a row of perforations in the neck of the bag moved by said upper and lower belts. New Claim 17 further calls for upper and lower air dispensers positioned to deliver heated air to impinge against upper and lower surfaces of the portion of the bag neck bridging between the belts for melting and forming first and second seal strips adjacent opposite sides of a row of perforations, said first seal strip being a hard seal that can be torn from the bag when the bag is torn along the row of perforations, and said second seal being a soft seal formed to permit flaps of the bag to be separated along the soft seal for accessing the contents of the bag, said soft seal being configured to

assure that the contents of the bag remain fresh and to prevent contamination. The references, when considered separately or in combination, do not suggest the method of Claim 17, and it is urged that the claim be allowed.

New Claim 18 calls for a method of forming a tamper evident seal on a plastic bag containing a product comprising the steps of: flattening a portion of the neck of the bag adjacent the open end of the bag; perforating the portion of the neck of the bag adjacent the open end of the bag that has been flattened for forming a strip of perforations; forming first and second sealed strips on a segment of the flattened portion of the neck of the bag adjacent opposite sides of said strip of perforations, wherein the step of forming first and second sealed strips on a segment of the flattened portion comprises moving the perforated neck of the bag such that spaced streams of heated air impinge on surfaces of the bag adjacent opposite sides of said strip of perforations for fusing panels on the bag together; and controlling the heat transfer rate between spaced streams of heated air adjacent opposite sides of said strip of perforations for forming a soft seal strip between the product and the strip of perforations and for forming a hard seal strip between the strip of perforations and the open end of the bag. The references, when considered separately or in combination, do not suggest the method of Claim 18, and it is urged that Claim 18 be allowed.

New Claim 19 is independent on Claim 18 and further calls for diverting air flow from the supply line into the manifolds to form spaced streams of heated air that impinge on surfaces of the bag adjacent opposite sides of the strip of perforations for fusing panels on the bag together; and exhausting air from the supply line, without interruption of the flow of air through the heater. The references, when considered separately or in combination, do not suggest the method of Claim 19, and it is respectfully urged that claim 19 be allowed.

New Claim 20 calls for apparatus for forming a tamper evident closure on a plastic bag containing a product comprising: a conveyor for moving a plastic bag containing a product along a path, said bag having an open end forming a neck extending beyond the product in the bag; a pair of upper belts and a pair of lower belts, said upper and lower belts being horizontally spaced apart such that one of said upper belts and one of said lower belts engage opposite sides of a portion of

the neck of the bag and one of said upper belts and one of said lower belts engages a second portion of said bag neck such that a portion of the bag neck bridges space between the upper pair of belts and the lower pair of belts; upper and lower air dispensers positioned to deliver heated air to impinge against upper and lower surfaces of the portion of the bag neck bridging between the horizontally spaced belts for melting and forming a sealed strip across the width of the bag neck; and motor driven upper and lower gathering belts synchronized with said upper and lower belts for moving bags along a path to a position adjacent a needle assembly, a twister hook assembly and a holder-shear assembly for wrapping a wire-like tie around the neck of the bag. The references, when considered separately or in combination, do not suggest the combination of elements called for in Claim 20 and it is urged that Claim 20 be allowed.

New Claim 21 calls for apparatus for forming a tamper evident closure on a plastic bag containing a product according to Claim 20, further comprising: means for forming a row of perforations in the bag between the gripped portions of the bag; and means spaced from said means for forming a row of perforations for delivering temperature controlled gas to impinge against the surfaces of the bag between the gripped portions for fusing portions of the bag between the gripped portions for forming hard and soft sealed strips, said perforations being positioned between the sealed strips to permit removal of the hard sealed strip. The references, when considered separately or in combination, do not suggest the combination of elements called for in Claim 21 and Applicants urge that Claim 21 be allowed.

New Claims 22, 23 and 24 call for specific perforator, manifolds and a diverter valve as discussed hereinbefore.

Applicants respectfully urge that the secondary references cited by the examiner relate to non-analogous art and that the proposed combinations of the references are not fairly suggested by the references. Additionally, there is nothing in the primary reference to Davis or either of the secondary references to Andersson et al or Forman that would suggest gripping spaced portions of the bag neck between a pair spaced upper belts and a pair of spaced lower belts, such that the neck of the bag bridges space between the belts; forming a row of perforations across the neck of the bag

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between the loaf of bread in the bag and the open end of the bag neck; and forming first and second sealed strips on spaced portions of the neck that bridges space between the belts adjacent opposite sides of the row of perforations, such that the loaf of bread in the bag is not accessible without removing the first sealed strip and opening the neck of the bag along the second sealed strip. Further, there is not anything in the references that would suggest that the perforations should be formed as a separate step before forming the sealed strips. The rejection of the original Claims 1-13 is improper because the references are devoid of the requisite teaching to combine the references as proposed.

New Claims 14-24 are presented to more clearly define Applicants' invention in the scope to which they are entitled.

The application as now presented appears to be in condition for allowance and such action is respectfully solicited.

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 03-3840. A duplicate copy of this Response is also enclosed for this purpose.

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as First Class mail, postage prepaid, in an envelope addressed to the ASST.
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on:

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Gerald G. Crutsinger
Name of Applicant, Assignee or Registered Representative


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Respectfully submitted,


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